

In the Claims

1. (Currently Amended) An isolated and purified protein comprising a mammalian K⁺ channel with two pore domains, wherein said channel produces currents whose current-voltage relationship is weakly inwardly rectifying in high symmetrical K⁺ conditions, and wherein said channel comprises the amino acid sequence of SEQ ID NO: 2.
2. (Original) The protein of claim 1, wherein said channel is a human K⁺ channel.
3. (Currently Amended) The protein of claim 1, ~~having a sequence of amino acids as set forth in~~ consisting essentially of the amino acid sequence of SEQ ID No. 2. NO: 2.
4. – 26. (Cancelled)
27. (Currently Amended) The mammalian K⁺ channel of claim 1, wherein said high symmetrical K⁺ conditions is a K⁺-rich external medium of ~~around~~ about 150mM.